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NOTICE OF ALLOWANCE AND FEE(S) DUE

07/24/2008

SAN MARTIN, JAYDI A

ART UNIT PAPER NUMBER

2834

DATE MAILED: 07/24/2008

CONNOLLY BOVE LODGE & HUTZ LLP 1990 M DTREET N.W. SUITE 800 WASHINGTON, DC 20036

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590 367	10/10/2006	Kourosh Kalantar-Zadeh	21854-00073-1151	8301

TITLE OF INVENTION: LAYERED SURFACE ACOUSTIC WAVE SENSOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEĖ DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	10/24/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.
- II. PART B FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents

P.O. Box 1450 Alexandria, Virginia 22313-1450 or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correct maintenance fee notifical	form should be used for correspondence includired below or directed others.	or transmitting the general the Patent, advangerwise in Block 1,	ISSU ce or by (a					ould be completed where correspondence address as ate "FEE ADDRESS" for
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				. [(Signature)
								(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENTO	R	ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/590,367	10/10/2006			Kourosh Kalantar-Zadel		21	B54-00073-US1	8391
TITLE OF INVENTION	: LAYERED SURFACE	ACOUSTIC WAV	E SEI	NSOR				
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE		PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	МО	\$1440		\$300	\$0		\$1740	10/24/2008
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3. ASSIGNEE NAME A PLEASE NOTE: Unl recordation as set fort (A) NAME OF ASSIG	less an assignee is ident h in 37 CFR 3.11. Comp				patent. If an assign n assignment.			cument has been filed for
Please check the appropr	iate assignee category or	categories (will not	be pr	inted on the patent):	Individual Co	orporati	on or other private grou	ip entity Government
	are submitted: lo small entity discount p # of Copies		4t	D. Payment of Fee(s): (Plot) A check is enclosed Payment by credit c The Director is herel overpayment, to Dep	ard. Form PTO-2038	is atta	ched.	,
5. Change in Entity Sta	tus (from status indicate	d above)						
<u>-</u>	s SMALL ENTITY statu			b. Applicant is no lo				
NOTE: The Issue Fee an interest as shown by the i	d Publication Fee (if req records of the United Sta	uired) will not be acc tes Patent and Trade	cepte mark	d from anyone other than Office.	the applicant; a regi	stered :	attorney or agent; or the	assignee or other party in
Authorized Signature				·	Date			
Typed or printed name	e				Registration N	lo	<u>.</u>	
This collection of inform an application. Confident	ation is required by 37 C tiality is governed by 35	CFR 1.311. The infor U.S.C. 122 and 37	matic CFR	on is required to obtain or	retain a benefit by t stimated to take 12	he pub	ic which is to file (and to complete, including	by the USPTO to process) gathering, preparing, and

submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
10/590,367	10/10/2006	Kourosh Kalantar-Zadeh	21854-00073-US1 8391				
7:	590 07/24/2008	EXAMINER					
CONNOLLY BO	OVE LODGE & HUT	TZ LLP	SAN MARTIN, JAYDI A				
1990 M DTREET	N.W.		ART UNIT	PAPER NUMBER			
SUITE 800 WASHINGTON, I	DC 20036		2834 DATE MAILED: 07/24/200	8			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)		
	10/590,367	KALANTAR-ZADEH, KOUROSH		
Notice of Allowability	Examiner	Art Unit		
	J. A. San Martin	2834		
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication IGHTS. This application is subject to	olication. If not include will be mailed in due	ed course. THIS	
1. This communication is responsive to 4/10/08.				
2. The allowed claim(s) is/are <u>8-14</u> .				
 Acknowledgment is made of a claim for foreign priority unalse of All b) ☐ Some* c) ☐ None of the: ☐ Certified copies of the priority documents have ☐ Certified copies of the priority documents have ☐ Copies of the certified copies of the priority documents have 	been received. been received in Application No		tion from the	
* Certified copies not received:				
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with the red	quirements	
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 			OTICE OF	
5. CORRECTED DRAWINGS (as "replacement sheets") mus	st be submitted.			
(a) including changes required by the Notice of Draftspers	son's Patent Drawing Review (PTO-	948) attached		
1) 🗋 hereto or 2) 🔲 to Paper No./Mail Date				
(b) including changes required by the attached Examiner's Paper No./Mail Date				
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t			back) of	
 DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT 			Note the	
Attachment(s) 1. Notice of References Cited (PTO-892)	5. Notice of Informal P	atent Application		
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	 Interview Summary Paper No./Mail Dat 	(PTO-413), e		
Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4/08	7. 🛛 Examiner's Amendn			
Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. ⊠ Examiner's Stateme	ent of Reasons for Allo	owance	
	9. Other			

Art Unit: 2834

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR
 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In claim 12, change dependency to claim 10. The claim should read: A biological sensor as claimed in claim 10 --

In claim 13, change dependency to claims 8 or 9. The claim should read: A biological sensor as claimed in claims 8 or 9 in which the aperture size is approximately 200 wavelengths.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance: The references of the Prior Art of Record fail to teach or suggest either alone or in obvious combination the limitations as set forth in claim 8, and specifically comprising the limitation of a biological sensor having first and second SAW devices consisting of a piezoelectric crystal and a second piezoelectric layer made of a different material, both SAW devices formed on the same substrate and wherein the resonator circuits of each saw sensor incorporate amplifiers which are dependent.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/590,367

Art Unit: 2834

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. A. San Martin whose telephone number is 571-272-2018. The examiner can normally be reached on M-Th 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> /J. A. San Martin/ **Primary Examiner** Art Unit 2834

7/20/08

	Application Number		10590367	
INFORMATION DISCLOSURE	Filing Date		2006-08-23	
	First Named Inventor Kouros		ourosh Kalantar-Zadeh	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2834	
(Not for submission under or or it iso)	Examiner Name	San N	Martin, J.A.	
	Attorney Docket Numb	er	21854-00073-US1	

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/JSM/ 1		1	3979697		1976-09-07	Donahue		
	2 4868524			1989-09-19	Costlow et al.			
		3	5126694		1992-06-30	Montress et al.		
		4	4562371		1985-12-31	Asai et al.		
		5	5130257		1992-07-14	Baer et al.		
		6	5216312		1993-06-01	Baer et al.		
		7	5283037		1994-02-01	Baer et al.		
	/	8	5321331		1994-06-14	Baer et al.		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		10590367		
Filing Date		2006-08-23		
First Named Inventor Kouro		sh Kalantar-Zadeh		
Art Unit		2834		
Examiner Name San N		Martin, J.A.		
Attorney Docket Number		21854-00073-US1		

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		10	6122954		2000-09	9-26	Bowers				
		11	5012668		1991-05	i-07	Haworth				
		12	5817922		1998-10) - 06	Rapp et al.				
V	/	13	6480076		2002-11-12		Yip et al.				
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		10590367		
Filing Date		2006-08-23		
First Named Inventor Kourd		sh Kalantar-Zadeh		
Art Unit		2834		
Examiner Name San N		Martin, J.A.		
Attorney Docket Number		21854-00073-US1		

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/JSM/	2	2000-312126	JP		2000-11-07	Kyocera Corp				
/JSM/	3	2000-261276	JP		2000-09-22	Tdk Corp				
/JSM/	4	09-093079	JP		1997-04-04	Matsushita Electric Ind Co Ltd				
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Examiner Initials* Cite No Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.								T 5		
/JSM/	1	<url:www:sensor< p=""></url:www:sensor<>	Bill Drafts "Sensors-October 2000-Acoustic Wave Technology Sensors", Retrieved from the Internet on 19 June 2002: <url:www:sensormag.com 1000="" 68="" articles="" main.stml=""> Whole article and in particular see chapter titled "Sensor Applications" and Figure 11</url:www:sensormag.com>							
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